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CRIMINAL TRAJECTORIES IN ORGANIZED CRIME

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This paper investigates criminal trajectories of individuals who are involved in organized crime. A semiparametric group-model is used to cluster 854 individuals into groups with similar developmental trajectories. The most important findings of the study relate to the substantial group of adult-onset offenders (40 per cent) and a group without any previous criminal records (19 per cent), next to a group of early starters (11 per cent) and a group of persisters (30 per cent). Up to date, no trajectory study has discovered such a vast share of adult-onset offenders. Furthermore, the findings turn out to be quite robust, if trajectory analyses are applied to different kinds of criminal activities and to different roles in criminal groups.

Keywords: criminal careers, developmental and life-course criminology, organized crime, adult onset, trajectory analysis

Introduction

Developmental and life-course criminology has made great progress over the last two decades, yet most research has focused primarily on juveniles, adolescents and high-volume crime. The abundance of longitudinal research into these topics contrasts sharply with the sheer lack of solid empirical research on different types of offenders, particularly adult offenders, and different types of crime, particularly organized crime and white-collar crime (e.g. Dorn *et al.* 2005; Kleemans and de Poot 2008; Morselli 2005; Shover and Hochstetler 2006; Weisburd and Waring 2001).

In this paper, we focus on the criminal trajectories of offenders active in organized crime. Doing so, we analyse a dataset of the Dutch Organized Crime Monitor, including 120 cases and 1,623 offenders. This dataset provides an obvious opportunity to test the criticism of Steffensmeier and Ulmer (2005: 293–311) that traditional criminological theories focus too much on ‘losers’ and ‘bottom-barrel thieves and hustlers’ and that research into more profitable criminal activities might generate new insights. It may also shed new light on current discussions in developmental and life-course criminology on the salience of personal characteristics and long-term risk factors versus the influence of life events and situational context. We therefore address two basic research questions: (1) Which trajectories can be distinguished in the judicial careers of offenders involved in organized crime? (2) Is there a relationship between different trajectories and (a) different roles of offenders in criminal groups? and (b) different kinds of criminal activities in which offenders are involved?

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It is important to note that the major areas of business of organized crime groups in the Netherlands boil down to ‘transit crime’: international smuggling activities—drug trafficking, smuggling illegal immigrants, human trafficking for sexual exploitation, arms trafficking, trafficking in stolen vehicles—and other transnational illegal activities, such as money laundering and organized fraud. Hence, transit crime differs fundamentally from the archetype of organized crime that dominates the North American literature: ‘Mafia-type’ organizations that have gained control of certain economic sectors or regions, acting as ‘alternative government’ (e.g. Albin 1971; Fijnaut and Paoli 2004: 603–21; Finckenauer and Waring 1998; Kleemans 2007; Paoli 2002: 71).

There are several reasons why criminal careers in organized crime may be different from high-volume crime. Various crimes, such as property crime and violent crime, are simply open to everyone. Yet, things are somewhat more complex in organized crime. Kleemans and de Poot (2008) distinguish three strikingly common features of ‘transit crime’. The first distinct feature is the greater importance of social relations in organized crime, providing access to suppliers, co-offenders and profitable criminal opportunities (see also Morselli 2009). As more co-offenders are generally required for the successful commission of these crimes, seeking and finding suitable co-offenders is important (see, e.g. Reiss 1988; Tremblay 1993; Waring and Weisburd 2002; Warr 2002). Reliance on co-offenders from within one’s own social circle is not always sufficient, as they may not possess the necessary capabilities. Contacts with the legal world are also salient for transport, money transactions and shielding activities from the authorities. Trust is also important, as the financial stakes are high and the rules and mechanisms that make transactions in the legal world so much easier are absent: entering into contracts, paying via the official banking system and—in the case of disagreement—the availability of mediation of the courts (Gambetta 2000; Potter 1994; Reuter 1983; Von Lampe and Johansen 2004). For this reason, existing social ties are used, or illegal business relationships have to be built up. The second distinct feature of organized crime in the Netherlands is the transnational character of many of these criminal activities (Kleemans 2007). Many types of organized crime are based on international smuggling activities. Not all offenders have access to these transnational contacts, and some only later on in life. A third common feature is that the crimes committed are logistically considerably more complex than high-volume crime (e.g. Sieber and Bögel 1993; Cornish and Clarke 2002).

Life-Course Criminology and Criminal Careers of Older Offenders

In developmental and life-course criminology, there is a strong emphasis on personality characteristics and long-term risk factors when explaining differences in criminal trajectories (see, e.g. Farrington 2003; Laub *et al.* 2006; LeBlanc and Loeber 1998; Liberman 2008; Moffitt 1993; 2006; Piquero *et al.* 2003; Smith 2007; Thornberry 1996). Many longitudinal studies have focused on the relatively short time-span from childhood to early adulthood. This focus on early life-stages often coincided with a strong emphasis on individual differences in propensity to criminal and other anti-social behaviour, and a quest for individual characteristics and experiences that are associated with the development of this behaviour (Farrington 2005). For example, Moffitt’s well known ‘dual taxonomy’ distinguishes between a large group of people who engage in crime

and anti-social behaviour mostly during adolescence ('adolescence-limited' offenders) and a small group of people who are anti-social from an early age, engage in crime in adolescence and remain active in crime and other forms of anti-social behaviour throughout their lives ('life-course-persistent'). The explanation for 'life-course-persistent' criminal behaviour is generally sought in fairly stable biological or psychological characteristics—often deficiencies—such as low intelligence, high impulsivity or low self-control. Moffitt argues that early problem behaviour is an indicator that a person belongs to the life-course-persistent group and that anti-social and criminal behaviour is likely to continue into later life.¹

Gottfredson and Hirschi (1990) follow a similar route in their 'general theory of crime'. Although they deny the very existence of different 'types' of offenders, their basic approach is quite comparable: people develop self-control early in life, and those who lack sufficient self-control engage in criminal acts and similar behaviour—with short-term benefits and long-term costs such as drinking, smoking and adultery—at higher rates than others throughout their lives. Many developmental and life-course theories of offending, though often more nuanced and empirically grounded, share this strong emphasis on personality characteristics and long-term risk factors, and treat anti-social behaviour in children as essentially similar to offending in adults (Farrington 2005).

In this light, many theories assume that onset of offending occurs early in life, and that adult offending requires childhood anti-social behaviour (see, e.g. Moffitt *et al.* 2001; Robins 1978). From that perspective, adult-onset offending is a rare phenomenon that needs no serious research effort (e.g. Gottfredson and Hirschi 1990). As a result, existing criminal career research sheds insufficient light on adult-onset offending, and even when part of a studied sample turns out to be adult-onset offenders, they are frequently ignored or brushed aside theoretically. The general neglect of adult-onset offending can be attributed to two major factors. First, the majority of trajectory research focuses on a relatively small (and mostly young) age frame and is therefore unable to identify adult-onset offenders in advance. Piquero (2008) provides an overview of all research using trajectory methodology in studying criminal activity over the life-course between 1993 and 2006. These 90 studies reflect about 50 different samples. Only half of the samples include individuals after age 18 and only a fifth have data available after age 30. Second, almost all research on criminal careers is concerned with high-volume crime, in which adult-onset offending is relatively scarce (but see Eggleston and Laub 2002).² If attention would be paid to less common crime types, such as organized crime, still other career patterns might emerge. Criminal careers in organized crime are scarcely investigated, with the exception of a few case studies.

Nevertheless, some studies can indirectly shed light on criminal careers in organized crime. Over the past years, a number of studies have examined criminal careers in white-collar crime. Although there is a difference between white-collar crime and organized crime, both concern more uncommon types of crime and both may reveal different

¹Recently, Skardhamar (2009) criticized Moffitt's taxonomy by casting doubt upon the integration of multiple mechanisms, the clear distinction between two types of offenders instead of assuming gradual differences and the empirical evidence of the taxonomy.

²It should be noted that in many studies, individuals engaging in crime at age 12–15 already are considered to be late or adult-onset offenders (see, e.g. Moffitt 1993; Nagin and Farrington 1992; Patterson and Yoerger 1997).

patterns from the ones found in more traditional research. Until 1980, most of what was known concerning white-collar offenders and their crimes was extracted from case studies (see, e.g. Levi 2008; Weisburd and Waring 2001). From 1980 onwards, datasets were constructed containing white-collar crimes committed in the United States (Leeper Piquero and Benson 2004). These new efforts immediately refuted a common belief about white-collar offenders. They are not all one-time offenders, as had been stated before (see, e.g. Wheeler *et al.* 1988; Edelhertz and Overcast 1982). Almost half of the white-collar offenders have had at least one other official contact with the criminal justice system (Benson and Moore 1992; Weisburd *et al.* 1991). Furthermore, these criminal careers turn out to differ substantially on several aspects from careers of high-volume crime offenders (see, e.g. Leeper Piquero and Weisburd 2008). Or, as noted by Leeper Piquero and Benson (2004), ‘the typical white-collar offender greatly differs from the typical street offender and does not appear to fit into the proposed explanations of life-course-offending patterns’.

Based on their findings on white-collar criminals, Leeper Piquero and Benson (2004) propose a theory on career patterns in white-collar crime called *punctuated situationally dependent offending*. It assumes that white-collar criminals are criminally active during adolescence (just like common offenders), then desist for a while, and begin to offend again when they reach their thirties or forties. External factors are used to explain this revival later in life. One explanation involves a personal or occupational crisis that the offender is going through. A second explanation relates to opportunities presented when a certain occupational status has been reached. Situational context is a key concept in explaining a large proportion of involvement in white-collar crime. Results of a study by Weisburd and Waring (2001) corroborate this idea: the white-collar offenders studied differ on various career aspects from offenders of high-volume crime: the age of onset was relatively late (cf. Benson and Kerley 2000), they were criminally active for a substantially longer period and were arrested for fewer offences throughout their criminal career. These lines of research show the importance of incorporating new groups of offenders. Developmental and life-course criminology flourished in the past decade and produced a number of interesting findings on criminal careers. However, this research particularly focuses on common offenders and common types of offences. Furthermore, the majority of research is focused on juvenile offenders and already filters out particular types of crime most likely to be committed at older ages. To challenge our developmental and life-course theories, we need to focus on other offender groups.

Pathways into Organized Crime

As early as 1940, Sutherland emphasized the importance—when developing criminological theories—of recognizing different kinds of crime, in particular those that differ from common street crime. Although Sutherland hoped to use the misbehaviours of less common white-collar criminals as ammunition against the reigning tendency to explain crime in terms of individual or social pathology (Nelken 2007), the literature on offenders of white-collar crime and organized crime often still emphasizes assumed special characteristics of offenders. Bovenkerk (2000), for instance, states that certain individual character traits would be conducive to a career in organized crime: ‘extraversion, controlled impulsiveness, a sense of adventure, megalomania and

Narcissistic Personality Disorder'. Basically, the personality traits of successful legal entrepreneurs (based on the 'Big Five' from psychological theory of personality) would be mirrored in the personality traits of illegal entrepreneurs. Conversely, Morselli *et al.* (2006: 36) emphasize the benefits of low self-control in competitive settings, such as organized crime markets: '... the behavioral components inherent in low self-control (impulsive, simple-task oriented, risk seeking, physicality, self-centered, and short-tempered) can all be expressed as key assets (quick-thinking, uncomplicated, risk seeking, action-oriented, individualistic, and unforgiving-ruthless) in many competitive settings.' Following this line of reasoning, one would expect that people engaged in organized crime might be different from the general offender population and that main suspects or nodal offenders might be different from lower-level suspects in organized crime.

However, there are also important lines of research that raise objections against this focus on individual characteristics. Some offenders of organized crime are quite normal and well adapted in many respects, even though they are involved in serious forms of crime. Many of them have legitimate jobs and sources of income (e.g. Block and Chambliss 1981). Moreover, not all crimes are the same, nor are they just symptoms of latent characteristics such as low self-control and a variety of people can become involved in organized crime (e.g. Steffensmeier and Ulmer 2005; Zaitch 2002; Zhang *et al.* 2007). From this point of view, situational factors—instead of personality traits—can explain involvement in organized crime. Kleemans and de Poot (2008) use the theoretical concept of social opportunity structure—social ties providing access to profitable criminal opportunities³—to explain phenomena such as late-onset offending and people switching from conventional jobs to organized crime, also later in life.

Criminal careers in organized crime are scarcely investigated, with the exception of a few important case studies, and have never been studied in a broad, quantitative way. The majority of knowledge results from memoirs and testimonies (e.g. Bowden 2001; Iorizzo 2003; Mustain and Capeci 2002; Paoli 2003; Powell 2000). Morselli (2001; 2005), for instance, extensively described the career of Howard Marks, an international drug smuggler. This description is based largely on information extracted from Marks' autobiography, *Mr. Nice*. Morselli particularly emphasizes success factors in a criminal career in organized crime relating to brokerage, the number of (non-redundant) contacts and social network dynamics. He focuses on the personal network that explains why Marks was able to be successful in the cannabis trade for 20 years. These and other case studies are important in many ways. They illustrate the complexity of a criminal life-course, including contacts, situational context and processes such as persistence and desistance. Furthermore, they give a better understanding of life histories and personal factors. However, from a broader perspective, one may wonder whether these case studies reflect the average or the exceptional offender in organized crime, and whether these studies are able to capture the full range of different pathways in organized crime. Case studies based on memoirs or testimonies may be biased towards more interesting, more talkative or defective, atypical offenders. For this reason, some recent studies try to fill this gap in the literature by sketching a much broader picture of

³This theoretical concept captures the idea that several types of crime, such as organized crime, are not equally accessible for everybody and not in all stages of life. It merges ideas from life-course criminology with opportunity theory (e.g. Clarke and Felson 1993) and social network theory (e.g. Burt 1992; 2005; Morselli 2009).

criminal careers in organized crime based on a large, quantitative and qualitative dataset.

One of these recent studies was carried out by Kleemans and de Poot (2008). They showed that offenders in organized crime do not fit classical life-course theories. They analysed the criminal records of 979 offenders who were involved in 80 extensively analysed cases of the Dutch Organized Crime Monitor, and conclude that older offenders are overrepresented in organized crime, when compared to the total offender population. Their empirical findings draw attention to late-onset offending and people—without any appreciable criminal history—in conventional jobs who switch careers, also later in life. The study stresses different career patterns and different pathways into (organized) crime, related to social ties, work ties, sidelines and leisure activities, and life events (particularly those creating financial setbacks).

Current Study

The current study is based on a combination of qualitative data from the Dutch Organized Crime Monitor and quantitative information extracted from judicial data sources. The sample consists of offenders, all engaged in organized crime in the Netherlands between 1994 and 2006. Due to the extensive, systematic case descriptions of criminal groups, criminal activities and individual offenders, we were able to link offender information, the context of criminal groups and criminal activities, and information on their judicial history before they got involved in organized crime.

Different theoretical notions, from developmental and life-course criminology as well as from organized crime research, yield different expectations about trajectories in organized crime. The situational approach, for instance, changes our perspective from the characteristics and motivations of offenders to the opportunities and constraints arising from the environment. For this paper, the most relevant question is whether or not there is a relationship between trajectories in organized crime and the kind of criminal activities people are engaged in. Late-onset offending, for instance, might be explained by opportunities extending from legal activities and legal occupations. Fraud is the typical case of criminal activity that is closely connected to legal activities and legal occupations (Levi 2008; Middleton and Levi 2004). Conversely, drug trafficking—with illegal suppliers and illegal buyers—might be treated as the other end of the continuum, although international drug trafficking has more connections with legal activities than some people might expect. Many other criminal activities, such as smuggling illegal immigrants, trafficking in stolen vehicles or money laundering, might be best treated as a mixed category.

In addition, different theoretical notions might produce different, partly contradictory expectations—not only with regard to criminal trajectories and different types of criminal activities, but also with regard to different roles in criminal groups. Some might argue that early onset—arising from personality deficits or low self-control—would be even more prominent in serious forms of crime, such as organized crime, than in other forms of crime, and more prominent among main suspects or nodal offenders than among lower-level suspects. From a different perspective, one might argue that a prominent position in organized crime requires some education, skills or legal opportunities, whereas ‘losers’ would end up as lower-level suspects doing the dirty jobs.

The fact is that, up until now, research on criminal careers in organized crime is scarce, and systematic analysis of trajectories in organized crime is absent. In the following sections, we will analyse trajectories in organized crime, based upon a large dataset, and we will investigate relationships with different roles of offenders in criminal groups and different kinds of criminal activities in which offenders are involved.

Data and Operationalization

Organized Crime Monitor

To answer the research questions concerning criminal careers of offenders who engage in organized crime, we use the unique dataset of the Dutch Organized Crime Monitor. This monitor considers groups to be involved in organized crime ‘when they are primarily focused on obtaining illegal profits, systematically commit crimes with serious damage for society, and are reasonably capable of shielding their criminal activities from the authorities’ (Fijnaut *et al.* 1998).⁴ The main sources for this ongoing research project are files of closed Dutch police investigations of criminal groups, often spanning a period of several years.⁵ The case studies reflect a strategic selection based on surveys of closed police investigations of regional police forces, the National Crime Squad, and special investigative policing units (particularly targeting fiscal and economic crime). It is important to note that—compared to other countries—Dutch criminal investigations provide a lot of ‘objective’ evidence on offender behaviour, due to the extensive use of wiretapping, observation techniques and other special investigation methods, and the absence of plea-bargaining. Having access to the original police files, the evidence can be checked to a large extent by the researchers themselves. From 1994 to 2006, 120 large-scale investigations have been analysed systematically, producing a wide cross-section of case studies about various forms of organized crime. Hence, the 120 case studies are rich in empirical detail and provide a lot of qualitative contextual information about criminal careers of individual offenders.⁶

Criterion offence, roles and criminal activities

In the 120 studied criminal groups, 1,623 offenders were involved. We refer to their organized crime case as their criterion case. Extensive case descriptions of all 120 criminal groups and 1,623 offenders involved in these groups allowed for classifying

⁴Shielding illegal activities from the authorities is possible through various strategies such as: corruption, violence, intimidation, storefronts, communication in codes, counter surveillance, media manipulation, the use of experts such as notaries public, lawyers and accountants.

⁵For more information, see Kleemans and van de Bunt (1999; 2003) and Kleemans (2007).

⁶Each case study always starts with structured interviews with police officers and public prosecutors. After these interviews, the police files are analysed and summarized. When describing and analysing these files, use is made of an extensive checklist that elaborates upon the following major questions: What is the composition of the group and how do offenders cooperate? What kinds of illegal activities do they engage in and how do they operate? How do they interact with the opportunities and risks presented by their environment? What are the proceeds of the criminal activities and how do they spend these proceeds? Unobtrusive police methods, such as transcripts of wiretaps and data obtained from police observations, and interrogations of victims and offenders, often provide a detailed and interesting picture of the social world of organized crime. The analysis results in structured case descriptions of 20–50 pages and, for recent years, digital files of the original data.

different roles that offenders fulfil and different types of criminal activities in the criminal group. Based on different theoretical notions mentioned in the previous section, four different roles are distinguished:

- (1) Leaders and ‘nodal’ offenders, who fulfil an executive function in the organized crime case. They give orders to co-offenders and are of major importance to the total process.
- (2) Coordinators, who plan and manage concrete criminal activities. Coordinators, for instance, take care of subgroups that are unloading contraband or transporting people.
- (3) Lower-level suspects, who perform concrete acts. They, for example, are deployed in the actual transport of illegal goods and are easily replaceable.
- (4) Others, such as facilitators, who are responsible for particular logistical or technical processes (money exchangers, underground bankers, financial and judicial advisors, forgers of documents, etc.), or offenders whose roles are unclear or difficult to classify.

Furthermore, we distinguished between three different types of criminal activities:

- (1) Drug trafficking, which is the largest category, includes large-scale production or trafficking of drugs with the Netherlands as country of production, transit or destination.
- (2) Organized fraud, which includes large-scale evasion of levies and taxes. For instance: a criminal group forged customs stamps to import and export cigarettes without paying duties.⁷
- (3) Other criminal activities, such as smuggling illegal immigrants, human trafficking, trafficking in other illegal goods, etc.

Judicial history

In order to answer the research questions, we need information on what happened before the criterion case in organized crime. This information is derived from the Dutch Judicial Documentation System (JDS) that contains information on all judicial contacts from age 12 onwards who are registered at the Dutch Public Prosecutor’s Office. Every record of a judicial contact contains the registration date, along with details of the suspect, the crime and the way the case has been dealt with.⁸ We did not include records concerning minor offences, such as speeding offences. For this study, we used a copy of the JDS, which is especially designed for research purposes: the ‘Research and Policy Database for Judicial Documentation’ (OBJD).⁹ An important characteristic of this device is that registered judicial contacts are never eliminated. They remain available long after official retention periods have expired. For each offender included in the Organized Crime Monitor, we tried to track his or her information in the JDS, including

⁷This type of organized fraud does not include individual tax fraud or corporate crime.

⁸Cases may result in a conviction, acquittal, prosecutorial fine or waiver. In the Dutch criminal justice system, the public prosecutor has the discretionary power not to prosecute every case forwarded to them by the police. The public prosecutor may decide to drop the case for technical, procedural or policy considerations (technical or policy waiver). This may, for instance, be the case when other than penal sanctions are preferable or more effective, or when the prosecution would probably not lead to a conviction. Furthermore, waivers or acquittals may have other backgrounds than lack of evidence, most notably formal reasons, exceeding reasonable time limits and considerations of efficiency.

⁹See Wartna *et al.* (2008) for further details on this data source.

all judicial contacts of this offender. We could trace information of 1,407 of the 1,623 offenders, providing us with information about individual characteristics and judicial histories.¹⁰

A characteristic of our offender population is that relatively many organized crime offenders did not grow up in the Netherlands.¹¹ For offenders who have lived part of their lives or still live outside the Netherlands, the judicial records of the JDS cannot be considered as their complete judicial history. The JDS only holds information on contacts with the Dutch criminal justice authorities. It remains unknown what has occurred in criminal justice systems outside the Netherlands. Based on information in the case studies, we were able to distinguish between offenders who have lived in the Netherlands since they were 12 years old or earlier and others. For the first group, crimes committed in the Netherlands or established in a Dutch investigation will, in principle, be recorded in the JDS. In this sense, their JDS histories can be regarded as 'complete'.¹² We therefore restricted our analyses to this subset of offenders who grew up in the Netherlands. For the remaining 854 offenders, 784 men and 70 women, all information regarding their criterion offence and judicial history is known.

Summing up, each offender has a *criterion case* in organized crime, in which he or she fulfilled a specific *role* and performed certain *criminal activities*. In addition, we have information available on all *judicial records* before their criterion case in organized crime.

Results

General characteristics of the offender population

The studied offender population of 854 offenders were, on average, 38 years old at the time of the criterion offence in organized crime. Ages of this offender population deviate considerably from the general offender population. Our offender population comprises only one juvenile, whereas 68 per cent were between 30 and 50 years old at the time of the criterion offence. These findings confirm that involvement in organized crime in the Netherlands generally takes place in later stages in life, as has previously been documented by Kleemans and de Poot (2008).

Table 1 shows that 11 per cent of the offenders could be characterized as a (ring) leader or nodal offender, and fulfilled an executive function in the organized crime case; 23 per cent had a coordinating role, and planned and managed concrete criminal activities. More than half of the offenders (55 per cent) could be characterized as lower-level suspects, who perform concrete acts and are easily replaceable; and 11 per cent of the offenders fulfilled a different role (such as facilitator) or their role remained unclear or was difficult to classify.

¹⁰The fact that a few offenders could not be traced in the JDS may have two reasons. First, persons may not have a judicial record in the Netherlands, because they were prosecuted abroad for a crime for which they became known to us. This can also be derived from the various case descriptions. Second, the lack of information about suspects may be due to more 'technical' reasons: suspects are not, or not properly, registered in the JDS or they cannot be properly linked because of differences in the registration of their first names, surnames, etc.

¹¹In this respect, the population we studied deviates considerably from a cross-section of the total JDS population, which concerns the total group of offenders with at least one judicial contact that was dealt with in 1997 (N = 180,775). Only 53 per cent of the offenders of organized crime were born in the Netherlands, against 71 per cent of the total JDS population.

¹²These criminal histories are incomplete in other ways, too, because only crimes that have been detected, investigated, solved and recorded are studied. In this sense, it is better to refer to 'judicial' careers than to 'criminal' careers.

TABLE 1 *Characteristics of offenders (N = 854)*

<i>Role</i>	
Leaders and nodal offenders	96 (11%)
Coordinators	199 (23%)
Lower-level suspects	468 (55%)
Other	91 (11%)
Total	854 (100%)
<i>Criminal activity criterion offence</i>	
Drugs	574 (67%)
Fraud	65 (8%)
Other	215 (25%)
Total	854 (100%)

Regarding the different criminal activities, the data show that most offenders (67 per cent) were involved in drug trafficking, 8 per cent were involved in an organized fraud case and 25 per cent were involved in a different type of criminal activity (such as human trafficking or trafficking in other illegal goods).

General measures of the judicial history

Initial analyses concerning the judicial histories show that offenders were, on average, 26 years old when they had their first judicial record, that they had, on average, seven judicial records before the criterion offence, and that they were criminally active for an average period of 12 years before the criterion offence. Table 2 shows that these basic statistics do not differentiate substantially between offenders who fulfil different roles and offenders who are involved in different activities in the criterion offence. Some significant differences do remain: lower-level offenders are younger ($p < 0.01$) and less experienced ($p < 0.01$) at the time they are involved in organized crime than offenders fulfilling other roles in organized crime cases. Furthermore, fraudulent offenders are older at the time of their first judicial contact and at the time of the criterion offence than offenders involved in drugs or other types of activities ($p < 0.01$). However, it is quite plausible that

TABLE 2 *Judicial history**

	Mean age at first judicial contact	Mean age at criterion offence	Number of years between first judicial contact and criterion offence	Number of judicial contacts before criterion offence
Total	25.8	38.3	12.4	7.4
<i>Role</i>				
Leader	25.4 ^a	40.4 ^a	15 ^a	10.6 ^a
Coordinator	26.3 ^a	39.4 ^a	13.1 ^a	8.4 ^a
Lower-level	25.8 ^a	37.2 ^b	11.3 ^b	6 ^b
Other	25.5 ^a	39.1 ^{ab}	13.6 ^a	8.6 ^a
<i>Criterion offence</i>				
Drugs	25.3 ^c	38.3 ^c	13 ^c	7.8 ^c
Fraud	31 ^d	42.3 ^d	11.3 ^{cd}	6 ^c
Other	25.8 ^c	36.9 ^c	11.1 ^d	6.7 ^c

*Within each column, different superscripts indicate a significant difference between offenders with different roles or with different criterion offences ($p < 0.05$). For example, *a* and *b* differ significantly; *ab* differs from neither *a* nor *b*.

these general statistics mask different underlying trajectories and that offenders who perform different activities do follow different offending trajectories.

Offending trajectories

To explore more elaborately whether distinct groups of offenders of organized crime follow different criminal trajectories as indexed by their judicial records over time, we apply semiparametric group-based trajectory modelling to our data (Nagin 2005; Nagin *et al.* 1995). This model identifies clusters of individuals with similar patterns of judicial records (for an overview of the method and a description of the analysis, we refer to Appendix A). One hundred and fifty-nine suspects (19 per cent) did not have any criminal records prior to the criterion offence. They were excluded from the trajectory analyses and form a separate group of starters or ‘first offenders’. Figure 1 provides a graphical representation of the criminal careers of the distinguished trajectory groups. Characteristics of each of the four distinct groups are presented in Table 3. We will

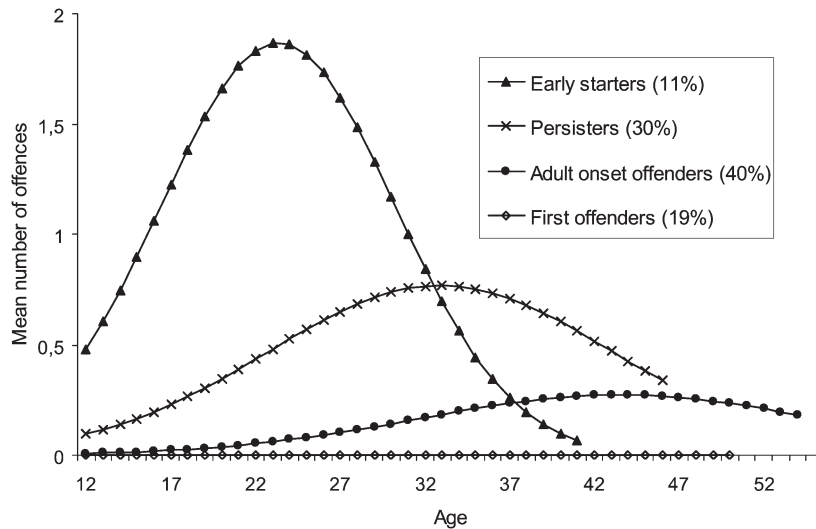


FIG. 1 Judicial records over age by trajectory group

TABLE 3 *Descriptive statistics for different trajectory groups**

	Number of suspects	Percentage of sample	Mean age at first judicial contact	Mean age at criterion offence	Mean number of years between first offence and criterion offence	Mean number of judicial contacts before criterion offence
Early starters	93	10.9	15.0 ^a	33.0 ^a	18.1 ^a	25.4 ^a
Persisters	260	30.4	18.8 ^b	35.7 ^b	17.0 ^a	10.4 ^b
Adult-onset offenders	342	40	29.1 ^c	42.3 ^c	13.5 ^b	3.5 ^c
First offenders	159	18.6	36.8 ^d	36.8 ^b	0 ^c	0 ^d

*Within each column, different superscripts indicate a significant difference between the trajectory groups ($p < 0.01$). For example, *a* and *b* differ significantly; *ab* differs from neither *a* nor *b*.

discuss each of these four trajectory groups. In addition, we will give an example for each trajectory group of one of the offenders that is assigned to that specific group. These descriptions are based on information from the Judicial Documentation System as well as qualitative case descriptions of the Organized Crime Monitor.

The first trajectory group has a shape that resembles the familiar aggregated age-crime curve, with a rise in the teenage years, a high peak during adolescence and a rapid decline afterwards. We call this group the *early starters*. In most criminal career research, one or more groups with such a shape are identified (Piquero 2008). This group has an early start in crime, compared with the other trajectory groups, and suspects are significantly younger at the time of the criterion offence than the other trajectory groups (see Table 3). The suspects start their criminal career at an average age of 15 years, and reach their peak around the age of 23 years. Although, in many youth studies, this peak occurs much earlier (e.g. Wiesner *et al.* 2007), other studies that measure lifespan offending trajectories also find later peaks for these groups (e.g. Blokland *et al.* 2005). The early starters have a lot of judicial records: 2.5 recorded crimes per year during their most active period. With a mean number of 25 judicial contacts, they are by far the most experienced group at the time of the criterion offence. This group constitutes the smallest trajectory group, and makes up only 11 per cent of the total sample.

A. is a leader of a criminal group that is involved in the production of and trade in XTC. At age 15, he was caught for the first time. In total, he has 32 judicial contacts (mainly theft, assault, and vandalism) before he becomes involved in organized crime.

A second cluster of suspects—the *persisters*—start their careers early in adolescence and persist until (late) adulthood. They are noticeable, as they remain criminally active for a long period. These persistent offenders reach their peak in their early thirties, showing a modest, steady decline from the age of 35 onwards. Two hundred and sixty suspects are included in this trajectory group, which equals 30 per cent of the sample. These suspects have, on average, 0.8 judicial records per year in their most active period, and 10 judicial records before the criterion offence. At the time of the criterion offence, the persisters are about the same age as the offenders without previous records.

At age 40, B. becomes involved in a criminal group that exploits women, who are brought to the Netherlands under false pretences. B. is responsible for the transport of women to the Netherlands. His first judicial contact was at age 16, and five more followed before he was caught for his criterion case in organized crime.

The third group—the *adult-onset offenders*—makes up the largest trajectory group: 40 per cent of the suspects are assigned to this trajectory group. These suspects do not start their criminal career until adulthood. Up to this date, a trajectory with this shape—low in the teenage years and rising from the age of 20 onwards—has not been found in criminal career research. Piquero (2008) concludes that in all trajectory studies that he reviewed, ‘offending appears to decline as early adulthood approaches for all groups’. It is not only its trajectory form that makes this group distinctive; another surprising fact is that in this study, a large share of suspects of organized crime are assigned to it. Such a substantially large trajectory group of adult-onset offenders has not been identified in any trajectory study before. Adult-onset offenders start offending after the age of 18. At a mean age of 29 years, adult-onset offenders start their criminal career and reach their

peak after their 40th birthday. However, their offence rate is low. At the most active period in their developmental path, they have, on average, 0.3 judicial contacts per year and they have, on average, 3.5 judicial records before they are prosecuted for the criterion offence. At that time, they have reached a mean age of 42 years.¹³

C. is 30 years old at the time of his first judicial contact, and four other judicial contacts follow before, at age 50, he becomes involved in a criminal group that unlawfully obtains oil products through embezzlement and forgery, and slushes large volumes of defrauded oil back into the legal circuit. C. has a coordinating role in this group; he mediates between shipmasters and the company they supply.

The last group comprises the *first offenders* (with no previous criminal records), making up almost 19 per cent of the total sample. This group may also be classified as late starters or adult-onset offenders, as none of these offenders was younger than 19 years at the time of the criterion offence (their first judicial record); 70 per cent of these starters were even older than 30 at the time of the criterion offence. These offenders are, on average, 37 years old when they get their first judicial record. An interesting finding is the number of women without records prior to the criterion offence; more than half (53 per cent) of the female offenders did not have any prior judicial records, against 16 per cent of the male offenders. Furthermore, women are less likely to be early starters; only 3 per cent of the female offenders are assigned to the early-starters trajectory (12 per cent of the male offenders are early starters).

D. is 37 when he is involved in organized crime and is caught for the first time. He has a performing role in a criminal group that transports cocaine from the US to the Netherlands by ship. D. regulates money transactions, starts companies and opens bank accounts to launder money, transports cash and advises the leader of the criminal group.

Trajectories, criminal activities and roles

Now that we have distinguished different trajectories in the criminal careers of offenders of organized crime, we address the question of how offending trajectories relate to different types of criminal activities and different roles in criminal groups. Earlier in this paper, contradictory expectations were deduced regarding the distribution of roles across trajectory groups. On the one hand, one might argue that early starters are more likely to become leaders of criminal organizations, because of their past criminal experience. On the other hand, one might argue that a prominent position in organized crime requires some education, skills or legal opportunities, and that early starters with low education and a long criminal history would end up as lower-level suspects, doing the dirty jobs.

¹³ Unlike birth cohort studies, the ages of the offenders in our sample vary widely. The sample consists of individuals who engage in organized crime at a particular moment in life, but all between 1994 and 2005. Part of the adult-onset offenders were juveniles in the 1960s and 1970s, while others were young in the 1990s. As the offenders in our sample are relatively old, it could be argued that the large part of adult-onset offenders may be due to a less systematic registration of crimes in the 1960s and 1970s, or to other history effects, such as differences in the prevalence of crime or the probability of apprehension. To check for such cohort effects, we divided the sample into three cohorts, based on the age of the offenders at the time of the criterion case, and examined the shapes of the trajectories within each cohort. The results of these analyses show that all cohorts reveal similar developmental paths towards organized crime and almost duplicate the trajectories found in the whole sample. Therefore, registration and history effects can be neglected.

However, our empirical findings do not show any clear relationship between the role the suspects perform in the organized crime group and their prior criminal trajectory. Table 4 shows the distribution of the suspects with different roles across the trajectory groups. Suspects with different roles are represented in each trajectory group and, for example, suspects with a leading role are not distributed across the trajectory groups in a manner that is significantly different from that of the coordinators. The only suspects with a distinguishable difference in their distribution pattern are lower-level offenders: chi-square statistics show that lower-level offenders are distributed across the trajectory groups in a way that is significantly different from that of both leaders and coordinators. Table 4 also shows that relatively few lower-level offenders are classified as an early starter (8 per cent) and that they are relatively often classified as a first offender. The criterion case thus more often is the first judicial record for lower-level offenders. Some other small differences can be detected. Leaders, for example, are somewhat overrepresented in the groups of early starters and persisters. They are more likely to have an early criminal start when compared to the total sample of organized crime suspects. However, this difference did not reach significance. Although the lower-level offenders deviate slightly from the general picture, overall, the data show that suspects with different roles are distributed similarly across the four groups, and that there is no relationship between the developmental criminal trajectory and the role a suspect plays. Suspects with the same role can have very different criminal careers and, within each trajectory, suspects with different roles are represented.

We also deduced different expectations regarding the distribution of the trajectory groups across different criminal activities. The boundaries between licit and illicit activities may be thin, particularly in organized fraud cases. Following this line of reasoning, one would expect to find more adult-onset offenders and offenders without a criminal history amongst those committing fraud than among drug traffickers.

However, Table 4 does not corroborate the idea that different trajectory groups are distributed differently across different criminal activities. Forty per cent of the suspects who were involved in a drugs case turned out to be an adult-onset offender. According to our expectations, suspects who were involved in fraud cases were more often classified as adult-onset offenders than suspects who were involved in other kinds of organized crime, whereas early starters are relatively seldom involved in fraud cases. However, these differences did not reach significance. There are no significant differences in the

TABLE 4 *Distribution of suspects over trajectory groups**

	N	Early starters	Persisters	Adult onset	First offenders
<i>Role</i>					
Leader ^a	96	17%	34%	36%	13%
Coordinator ^a	199	13%	31%	42%	14%
Lower-level ^b	468	8%	29%	40%	23%
Other ^{ab}	91	14%	32%	40%	14%
<i>Criterion offence</i>					
Drugs ^c	574	12%	32%	40%	16%
Fraud ^c	65	6%	20%	52%	22%
Other ^c	215	10%	29%	37%	24%
Total	854	11%	30%	40%	19%

* χ^2 -tests are used to examine the distribution of suspects with different roles and types of criterion offences over the trajectory groups. Different superscripts indicate a significant different distribution ($p < 0.05$). For example, *a* and *b* differ significantly; *ab* differs from neither *a* nor *b*.

way in which the suspects who are involved in different kinds of criminal activities are distributed across the four trajectory groups.

Discussion

The most important finding of this study relates to the substantial group of adult-onset offenders in organized crime cases (40 per cent). If we add the group without previous criminal records (19 per cent), containing all ‘adult starters’, we end up with a group of nearly 60 per cent with criminal careers that almost exclusively evolve in the adult years. To this date, no trajectory study has discovered such a vast share of adult-onset offenders. Furthermore, our findings are quite robust, if we distinguish between different criminal activities and between different kinds of roles in criminal groups.

These findings do not only contrast sharply with the classic age–crime curve; they also speak directly to general received wisdoms about criminal careers. Perhaps, late onset is not such an exceptional phenomenon, as is also suggested by other research (e.g. Blumstein *et al.* 1986; Wolfgang *et al.* 1987; Eggleston and Laub 2002; Gomez-Smith and Piquero 2005). Furthermore, chronic offending and serious delinquency may be related to early onset, yet early onset does not seem to be a necessary condition for careers in serious types of crime, such as organized crime. The major explanation for these remarkable findings, in our view, is that most research has concentrated, up until now, on the early stages of life and on high-volume crime. Yet, organized crime differs from high-volume crime in several respects: the salient role of social relations providing access to profitable criminal activities, the transnational character of criminal activities and the logistical complexity of these activities. Hence, not everybody has equal access to these criminal activities and not in all stages of life. Furthermore, later stages of life do provide access for people whose characteristics should not necessarily correspond with the long-term risk factors that are central to much research in the field of developmental criminology. Positions in social networks, occupational opportunity structures and access to the licit world might play a role as well. From this perspective, adult-onset and alternative career patterns might be less surprising than for theories that emphasize personal characteristics and, most notably, personal deficiencies.

We used a unique dataset to model criminal careers of offenders who were involved in organized crime at a particular moment in their lives. The data cover a large part of the lifespan. The first offences were committed at age 12, and the oldest offender is 76 years old at the time of her criterion case. We did not only obtain information on all their contacts with the authorities, but also gained a wealth of qualitative information on the organized crime case and individual involvement. However, our findings should not be misinterpreted as findings from a random sample. In organized crime research, a random sample is inconceivable, as police priorities—highlighting certain criminal activities and certain suspects—provide the basis for any sample researchers should want to construct.¹⁴ We therefore opted for a strategic sample that incorporates the

¹⁴A similar point could be made regarding research into high-volume crime, as well as regarding longitudinal designs that tend to exclude the types of offenders and the types of crime that are central to our research effort. Main concerns relate to the efficiency in reaching certain offender populations, (selective) sample attrition and testing effects (see, e.g. Bosick 2009): if offenders can be traced, later in life, who are the ones who are willing to be interviewed and who will provide reliable information about the criminal activities that are central to organized crime cases? Choosing a certain study design might implicitly entail the exclusion of certain types of offenders and certain types of crime.

heterogeneity of criminal activities and offenders (see, for more information, Kleemans 2007). This means that our quantitative findings should not be generalized beyond the context of our analysed cases. However, in organized crime research, the size, heterogeneity and empirical detail of our dataset are unprecedented. Heterogeneity and empirical detail were also applied in our analysis. The findings turn out to be robust if we distinguish between different criminal activities and between different roles in criminal groups. For every type of criminal activity (drugs, organized fraud and other criminal activities), we find quite similar distributions across trajectory groups and fairly large shares of adult onset (and 'first offenders'). The distributions are also quite similar for different roles in criminal groups (leaders, coordinators, lower-level suspects and others), whereas early onset or adult onset is not particularly restricted to, for instance, leaders or lower-level suspects.

A common problem in criminological research relates to uncertainty regarding the completeness of data on criminal records. First, many offenders who are involved in transnational crimes have not lived in the Netherlands since they were born. Hence, we included only those offenders in our analysis that had been living in the Netherlands since they were 12 years old (when offences are recorded) or earlier. Second, even for these offenders, not all their crimes will have resulted in judicial contacts that are recorded in the JDS. Yet, this is a problem that is common to all analyses of criminal careers using criminal records. For this reason, we should focus on the central issue in the discussion on early starters: crimes in adolescence, most notably property crime and violent crime. Could systematic differences in the risk of arrest provide a convincing alternative explanation for our empirical results?

A first argument might be that these offenders are 'clever'—from an early age—in circumventing criminal justice authorities. However, if we focus on property crime and violent crime in adolescence, this argument is theoretically unconvincing. Furthermore, our research comprises different trajectory groups, different roles and different types of criminal activities. Despite this heterogeneity, the robust findings stand out. Should one wish to assume differences between 'clever' leaders and 'dumb' lower-level suspects, or between 'clever' fraudsters and 'dumb' drug traffickers—considering, most notably, property crime and violence in adolescence—the analyses yield more similarities than differences.

A second argument might be that these offenders concentrate—from an early age—on organized crime instead of high-volume crime, producing a much lower risk of arrest. Of course, we cannot rule out this theoretical possibility, yet it has no sound empirical backing in our information on the life histories of these offenders. Furthermore, research by Kleemans and de Poot (2008) showed that early starters and adult-onset offenders follow different pathways: the careers of 'early starters' may be characterized by 'a life in crime', yet adult-onset offenders shift to crime from licit careers and from licit occupational backgrounds. Hence, the criminal careers of these offenders match their life histories, as described by the police files, which provides theoretical backing to our empirical results.

Adult onset is a rarely researched topic in developmental and life-course criminology, yet this does not mean that it also should be considered a rare phenomenon. Studies by Blumstein *et al.* (1986), Wolfgang *et al.* (1987), Eggleston and Laub (2002) and Gomez-Smith and Piquero (2005), for example, presented substantial shares of adult-onset offenders in different offender populations. Just like these studies, our findings refute

the general idea that late onset is a rare phenomenon that needs no serious research effort (e.g. Gottfredson and Hirschi 1990; Moffitt *et al.* 2001). On the contrary, the phenomenon of late onset features so prominently in our results that it deserves serious theoretical and empirical consideration. Theoretically, attention should be paid to different career patterns and to different pathways into (organized) crime, related to social ties, work ties, sidelines and leisure activities, and life events (Kleemans and de Poot 2008). Several types of crime, such as organized crime, are not equally accessible for everybody and not in all stages of life. Empirically, research should be extended to the later stages of life and to different types of crime, particularly organized crime and white-collar crime. Furthermore, quantitative research should be paralleled by qualitative research into particular pathways into crime and different career patterns. Life stories as well as findings from intrusive police investigations are capable of putting criminal careers into a social and historical context and might therefore contribute significantly to our knowledge of criminal careers.

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Appendix A

Semiparametric group-based trajectory modelling (Nagin 2005) is used to identify groups of offenders with similar patterns of judicial contacts over time before their criterion case in organized crime. To determine how many trajectory groups should be distinguished to best represent the data, multiple trajectory analyses are carried out, varying the number of groups, the order of the age terms included in the model and the use of an exposure variable that corrects for imprisonment.¹⁵ Several statistical criteria are used as a basis for selecting the optimal model.

The Bayesian Information Criterion (BIC) is used for model selection on many occasions and measures the improvement in model fit, taking into account a penalty for the addition of more parameters. The BIC is given by:

$$BIC = \log(L) - 0.5k \cdot \log(N),$$

where L is the model's maximized likelihood, k is the number of parameters in the model and N is the sample size. Higher values of BIC indicate a better model fit to the data.

Given a chosen model, individual probabilities of group membership are determined for each individual in combination with each of the three groups. This posterior probability of group membership is given by:

$$\hat{P}(k|Y_i) = \frac{\hat{P}(Y_i|k)\hat{\pi}_k}{\sum_k \hat{P}(Y_i|k)\hat{\pi}_k},$$

where $x = \hat{P}(k|Y_i)$ is the estimated probability that individual's i actual judicial history is given by trajectory k and $\hat{\pi}_k$ is the estimated proportion of individuals in trajectory k .

¹⁵ There is no need to correct for mortality, because all suspects were alive at the time they committed the criterion case. As we analyse their judicial histories, only crimes committed before the criterion case are analysed in the current study. However, suspects can also be incapable of committing a crime due to imprisonment. To correct for ages at which individuals were incapable of committing a crime, exposure variables are constructed. In the Netherlands, offenders commonly are set free after two-thirds of a long jail sentence. Therefore, we corrected the sentences according to the following rules: sentences of less than half a year stay unchanged, sentences of between 6 and 12 months are corrected with a factor 2/3 for the part of the sentence that is more than 6 months (= (sentence - 0.5)*(2/3) + 0.5). Sentences longer than one year are corrected with a factor 2/3 (= sentence * (2/3)).

In subsequent analyses, each individual is assigned to trajectory k where his or her posterior probability of group membership is highest. For each group, the mean posterior probability of group membership (AvePP) can be given as the mean $\hat{P}(k|Y_i)$. The higher this AvePP, the better the trajectory represents the judicial history of the offenders included in that trajectory.

A third model diagnostic is the odds of correct classification, which is computed for trajectory group j by:

$$OCC_j = \frac{AvePP_j / 1 - AvePP_j}{\hat{\pi}_j / 1 - \hat{\pi}_j}.$$

Indicative threshold values for these measures are given by Nagin (2005). AvePP > 0.7 and OCC > 5.0 for all trajectory groups indicate a high assignment accuracy.

The three-group quadratic model including an exposure variable (to correct for imprisonment) was chosen to best represent the data, based on the BIC score, the AvePP values (respectively for the three trajectories 0.91, 0.94 and 0.95), the OCC values (100, 16 and 20) and theoretical interpretation of the trajectories. This model is given by the following formula:

$$\log(\lambda_{it}^k) = \beta_0^k + \beta_1^k Age_{it} + \beta_2^k Age_{it}^2,$$

where λ_{it}^k is the predicted rate of judicial contacts for individual i at age t given membership of group k . Age_{it} is the individual's age at time t . The parameters β are computed using maximum likelihood estimation.

Because we only analyse the judicial history before the criterion case, information on every offender only is taken into account until the age at the time of the criterion case. An offender, for example, who has his criterion offence at age 45, will not be taken into account after that age. So, towards the right tail of the trajectories, fewer offenders will be included. We limited the trajectories to ages for which data on a substantial part of the trajectory group were available, and let the trajectories carry on through the point at which—for each separate trajectory group—10 per cent of the original offender group was left.